

Fortis' Integrated Quality, Health, Safety, and Environmental Management System Implementation



At a Glance . . .

- Committed to continuous improvement to support the needs of its customers, Fortis Mining, Engineering and Manufacturing, based in Canada, implemented a quality, health, safety, and environmental management system.
- Fortis learned that employee participation was key to the successful implementation of its management system.

Fortis Mining, Engineering and Manufacturing, based in Saskatoon, Saskatchewan, Canada, has successfully implemented an integrated quality, health, safety, and environmental (QHSE) management system. Fortis, which has grown and evolved from its parent company, Northern Strands Co. Ltd., is composed of major divisions—mining, engineering, manufacturing, destructive/nondestructive testing, and recertification and safety—to deliver an integrated and all-in-one approach to solving its clients' needs and to bring efficient solutions and reliable products to the mining industry. Fortis is committed to providing a safe working environment for everyone working on or visiting any premise or project site under Fortis' management. As such, Fortis has established a health and safety program, which guides the company in all its operations.

Complete details of the design and implementation of Fortis' integrated QHSE management system are described and depicted in Figure 1.

Figure 1: Integrated Management System Journey



Step 1: Accomplishing Top Management and Employee Buy-In

The vision and commitment of Fortis' top management and employees (top to bottom) enables the company to be committed to continuous improvement. Top management is actively involved in the review of systems and provides adequate resources to ensure that effective implementation of the QHSE management system is achieved. Fortis employees understand the benefits of a QHSE management system implementation and third-party certification. The goal was to create an integrated management system to effectively manage the diverse services and products that Fortis offers and to ultimately exceed customers' expectations. This integrated approach also included management of health, safety, and environment.

Top management actively provided adequate resources.

Step 2: Conducting a Gap Analysis

Fortis began its journey toward design and implementation of a QHSE management system by conducting a gap analysis to evaluate the status of its existing systems. Existing quality, health, safety, and environmental

The biggest challenge was to ensure employee readiness.

management policies were also reviewed. Results of the gap analysis, which were conveyed to top management, demonstrated that the biggest challenge was to ensure employee readiness for some major corporate growth and to increase the level of employee participation toward the initiative.

Through top management's perseverance as well as the active participation of all employees, Fortis was able to overcome these challenges. Before initiating the development process, Fortis conducted extensive training sessions to ensure all employees were aware of the requirements and benefits of a QHSE management system. This was the key in getting active participation from all employees and helped move the whole organization toward the goal.

Step 3: Implementing a Performance Measurement System

Department heads and employees were involved in deciding KPIs.

Each department was assigned a key performance indicator (KPI). Department heads and employees were involved in deciding KPIs. These KPIs were considered as the measure of the continual improvement initiatives at a department level.

Step 4: Developing a Centralized Documentation System

A lean documentation path was chosen to remove unnecessary information.

A centralized documentation system was implemented to ensure effective control on documents. All manuals, procedures, work instructions, and forms were kept in this centralized documentation system. Special training relating to the document approval process and handling of obsolete documents/drawings was also delivered to employees. Employees learned that a QHSE management system doesn't only focus on documents and procedures; with the emphasis on operational needs and practicality, Fortis avoided excessive documentation by following a lean documentation path.

After consultation with end users, documents were trimmed in a way that unnecessary and overloaded information was removed. Once required documentation was in place, Fortis proceeded with the implementation phase.

Step 5: Implementation of an Integrated Management System

Employees from all departments were involved in the EMS aspect/impact assessment.

Implementation of the QHSE management system included an organizationwide EMS aspect/EMS impact assessment and H&S risk assessment. Employees from all departments were involved in the EMS aspect/EMS impact assessment to try to capture all possible hazards.

Step 6: Conducting an Internal Audit

News of an upcoming audit conveyed that the audit would be conducted to find facts and not faults.

After about six months of successful implementation, an internal audit was conducted to check the level of conformance.

Employees were assured the audit would be conducted to find facts and not fault, which helped in gaining employees' trust and helped in getting honest answers. Deficiencies discovered during the internal audit were communicated to respective departments. Further, the continuous improvement team within the department initiated the root cause analysis process to identify the true cause for the deficiency. Accordingly, corrective and preventive actions were identified and implemented to prevent the recurrence of the events. A review system was put in place to assess the effectiveness of implemented corrective actions and to ensure that the applied corrective actions were truly preventing recurrence of the deficiencies.

Prior to the certification audit, a management review meeting (MRM) was done to review all quality-, health-, safety-, and environmental-related functions.

Step 7: Partnering With a Reputable Certification Agency

After securing references by contacting organizations that were already certified to integrated QHSE/ISO management system standards, Fortis selected a certification agency.

Step 8: Auditing and Certification

Once the certification agency was decided, and after the MRM, Fortis completed the external audit by the certifying body. With zero nonconformities and just a few opportunities for improvements (OFI), the external auditor recommended Fortis for certification. In June 2013 the company received its official certification.

The QHSE/ISO management system standards certification has resulted in greater employee involvement in business operations and a workforce that is truly engaged.

The QHSE management system has also helped Fortis demonstrate its commitment to meet customer requirements for product quality, health, safety, and environmental expectations. The company has observed a significant reduction in cost related to poor quality and a significant increase in the awareness of health and safety with all personnel—both at work and at home. The implementation also helps in effectively monitoring resource consumption and in choosing environmentally friendly methods and materials.



Lessons Learned

During this journey, Fortis learned that employee participation is one of the most important factors in the successful implementation of management systems. It is very important that the whole team is motivated enough to reach the goal. One of Fortis' biggest challenges in its successful QHSE implementation was to raise employee morale and motivation level; Fortis achieved this by providing the required resources.

Looking to the future, Fortis is committed to continuous improvement in serving and exceeding the expectations of its customers. To sustain effective implementation of the QHSE management system, much focus is placed on employee involvement and training. Scheduled activities such as internal audits, training, and management reviews are conducted as per the decided schedule. Active internal and external communications are also maintained to ensure compliance.

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